

## Community Air Pollution Health Studies

The Air Resources Board has a research program to investigate the health effects associated with community air pollution, especially in people most likely to be harmed. These effects may result from brief exposures or long, even life-long exposures. Three major California studies of children, one of the potentially most harmed groups, are underway.

### Children's Health Study

This study was initiated in 1991 to determine whether the long-term exposure of children to southern California's community air pollution during their "growing" years leads to effects on lung growth and breathing problems. Nearly 5200 schoolchildren from 12 southern California communities have participated. Each child's lung growth and changes in their respiratory health are measured annually. They also report on their activities affecting exposure, especially outdoor sports.

Recent results show that children in the communities with the highest levels of air pollution, as compared to those in the communities with the lowest levels, had about 10 percent lower rates of lung function growth. Recent results also show exposure to ozone lead to school absences due to respiratory illness. This investigation is in progress, but promises to provide critical insights into air pollutants impacting the respiratory health of our children.

### Fresno Asthmatic Children's Environment Study (FACES)

This study, which began in October/November 2000, is the first study in the ARB's new Vulnerable Populations Research Program. The focus of the study is on how environmental factors influence a child's asthma as they grow. Emphasis is on particles in community air.

A total of 450 asthmatic children living in the Fresno area are being enrolled into the study. All of the children will reside near a special air quality monitoring site located in downtown Fresno. The children's respiratory health will be evaluated over the next four years. The study will consider outdoor, indoor and personal exposures that may trigger asthma problems.

### Health Effects of Organic Chemicals in Community Air

Organic chemicals are emitted from petrochemical processing plants, refineries, industrial solvents, and from diesel transport. They are known to be toxic to human health. In a small, initial study, 26 asthmatic adolescents who live in an area of East Los Angeles with high levels of these chemicals are being studied. The aim of the study is to evaluate whether asthma symptoms are made worse by higher levels of organic chemicals, and to develop methods to be used if a larger study is indicated.

### For more information

Please contact the ARB's Public Information Office at (916) 322-2990, or our web site at <http://www.arb.ca.gov/ch/ceh/ceh.htm>. You may obtain this document in an alternative format by contacting our ADA Coordinator at (916) 322-4505 (voice); (916) 324-9531 (TDD, Sacramento area only); or (800) 700-8326 (TDD, outside Sacramento).

***The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our web site: [www.arb.ca.gov](http://www.arb.ca.gov).***